

HELMINTH TYPE-SPECIMENS IN THE SOUTH AUSTRALIAN MUSEUM

II. ACANTHOCEPHALA AND CESTODA

by

LESLEY R. SMALES*

South Australian Museum, Adelaide, South Australia 5000

ABSTRACT

SMALES, L. R. 1983. Helminth type-specimens in the South Australian Museum. II. Acanthocephala and Cestoda. *Rec. S. Aust. Mus.*, **18**(21): 493-501.

Type-specimens of 16 species of Acanthocephala and 80 of Cestoda are catalogued. All except two are from Australian or Antarctic hosts. Species are listed by the helminth types held by the South Australian Museum. Where a name change has occurred the most recent acceptable name is included.

INTRODUCTION

This is the second of an intended series of papers listing the helminth types held by the South Australian Museum and the Australian Helminthological Collection, currently housed in the Museum.

Species are arranged alphabetically according to the original name of the genus. Full synonymies are not given, but where a name change has occurred, the most recent acceptable name is given together with the relevant reference. Host-species names are those used in the original descriptions. Types held in the South Australian Museum have registration numbers prefixed by V. Types held in the Australian Helminthological Collection have registration numbers prefixed by AHC or AHC S.

The following abbreviations are used in the text. A.A.E. = Australian Antarctic Expedition, 1911-1914; BANZARE = British Australia and New Zealand Antarctic Research Expedition, 1929-1931; SAM = South Australian Museum; AHC = Australian Helminthological Collection; N.T. = Northern Territory; N.S.W. = New South Wales; Qld = Queensland; S.A. = South Australia; Tas. = Tasmania; Vic. = Victoria; W.A. = Western Australia.

PHYLUM ACANTHOCEPHALA

The earliest descriptions of type material held at the South Australian Museum are those of T. H. Johnston, Professor of Zoology, the University of Adelaide, Honorary Director of the Museum 1928-1931, and Chairman of the Museum Board 1940-1951. Later descriptions are by S. J. Edmonds, Hon-

orary Associate of the Museum, who is the foremost Australian authority on Acanthocephala and continues active research into the taxonomy of the group.

Acanthocephalans are parasitic, wormlike pseudocoelomates that lack a digestive system. A diagnostic feature of the group is the presence of an anteriorly placed, invaginable proboscis or introvert, always armed with hooks.

The adult parasites infest the digestive tract of vertebrates. Unless otherwise stated specimens listed below were dissected from the small intestine.

Arhytmorhynchus limosae Edmonds, 1971

Trans. R. Soc. S. Aust., **95** (2): 58-60.

Paratypes V2185-9, 3 ♂, 2 ♀, one in fragments from *Limosa lapponica*, Townsville, Qld., collector A. J. Bearup, 28/1/59.

Arhytmorhynchus frassoni Molin, 1858

Trans. Roy. Soc. S. Aust., **74** (1): 3 (Johnston & Edmonds, 1951), now *A. Johnstoni* (Molin, 1858 sensu Johnston & Edmonds, 1951), Golvan, 1960. Paratypes V2183-4, both ♂, one in fragments, from *Numenius cyanopus*, Gladstone, Qld., collector T. H. Johnston, 1910.

Note: Golvan, 1960 made the Australian specimens described by Johnston & Edmonds, 1951, a new species but gave no reasons for his action.

Corynosoma australe Johnston, 1937

Proc. Linn. Soc. N.S.W., **62** (1/2): 13-16.

Syntypes V2227-9, 4 ♂ and 2 ♀, from *Arctocephalus forsteri*, Pearson Is., S.A., collector J. B. Cleland, January 1923.

Note: Johnston, 1937, recorded the type as being deposited in SAM but this does not appear to have been done. Johnston & Best, 1942 mention that the type host for *C. australe* was incorrectly identified and should have been listed as *Neophoca cinerea*.

Corynosoma cetaceum Johnston & Best, 1942

Trans. R. Soc. S. Aust., **66** (2): 250-2.

Holotype ♂ V964, allotype ♀ V963, from *Dolphinus delphis*, Gulf St Vincent, S.A., collector probably T. H. Johnston, date unknown.

Echinorhynchus hylae Johnston, 1914

Proc. R. Soc. Qld., **26**: 83.

* Present address: Gippsland Institute of Advanced Education, P.O. Box 42, Churchill, Victoria 3845.

- Now *Porrorchis hylae* (Johnston, 1914) Schmidt & Kuntz, 1967.
 Type V2540, cotype V2539, from *Hylae caerulea* encysted in the liver. Collector probably T. H. Johnston, date unknown.
 Locality: near Brisbane, Qld.
- Echinorhynchus menurae* Johnston, 1912
Proc. R. Soc. Qld. **24**: 83.
 Now *Plagiorhynchus menurae* (Johnston, 1912) Golvan, 1956.
 Type V2438, from *Menura superba*, near Gosford, N.S.W., collector probably T. H. Johnston, date unknown.
 Note: Johnston, 1914 recorded that the types of *E. hylae* and *E. menurae* had been deposited in the Queensland Museum, Brisbane. However, on examination, specimens registered in SAM were found to be Johnston's original material.
- Echinorhynchus zanchlorhynchi* Johnston & Best, 1937
A.A.E. Rep. Ser. C **10** (2): 12-3.
 Holotype ♀ V2200, from *Zanchlorhynchus spinifer*, Macquarie Island, collected during A.A.E. 1911-1914.
- Empodium alectrae* Johnston & Edmonds, 1947
Rec. S. Aust. Mus. **8** (4): 557-61.
 Now *Mediorhynchus alectrae* (Johnston & Edmonds, 1947) Schmidt & Kuntz 1977.
 Syntypes V2470-8, from *Alectra lathanii*, Eidsvold, Burnett River, Qld., collector T. L. Bancroft, date unknown.
- Gordiorhynchus bancrofti* Johnston & Best, 1943
Trans. R. Soc. S. Aust. **67** (2): 226-9.
 Now *Centrorhynchus bancrofti* (Johnston & Best, 1943) Golvan, 1960.
 Holotype ♀ V2210, cotype ♀ V2211, from *Ninox strenua*, Eidsvold, Burnett River, Qld., collector T. L. Bancroft, date unknown.
- Gordiorhynchus falconis* Johnston & Best, 1943
Trans. R. Soc. S. Aust. **67** (2): 229-30.
 Now *Centrorhynchus falconis* (Johnston & Best, 1943) Golvan, 1960.
 Holotype ♂ V2212, from *Falco berigora*, Hermannsburg, N.T., collector T. H. Johnston, date unknown.
- Illiosentis furcatus* Van Cleave & Lincome, 1939
BANZARE Rep. Ser. B **6** (5): 91-8. (Edmonds, 1957).
 Now *Illiosentis edmondssi* (Van Cleave & Lincome, 1939 sensu Edmonds, 1957) Golvan, 1960.
 Lectotype ♀ V2336, from *Upenichthys porosus*.
- Station 76, continental shelf cast of Albany, W.A., collector T. H. Johnston, 1929-1931.
 Note: The lectotype here designated was selected from the original material by Edmonds.
- Longicollum pagrosomi* Yamaguti, 1935
Trans. R. Soc. S. Aust. **74** (1): 3-5. (Johnston & Edmonds, 1951).
 Now *Longicollum edmondssi* (Yamaguti, 1935 sensu Johnston & Edmonds, 1951) Golvan, 1960.
 Holotype ♂, V2349, from *Mylio australis*, Brisbane River, Qld., probably collected by T. H. Johnston in 1918.
- Mediorhynchus corcoracis* Johnston & Edmonds, 1951
Trans. R. Soc. S. Aust. **74** (1): 1-3.
 Holotype ♂ V2502, allotype ♀ V2501, from *Corcorax melanorhampus*, Upper Burnett River, Qld., collector T. L. Bancroft, date unknown.
- Neoechinorhynchus aldrichettae* Edmonds, 1971
Trans. R. Soc. S. Aust. **95** (2): 55-8.
 From *Aldrichetta forsteri* (posterior gut), Port Pirie, S.A., collector L. M. Angel, Port Pirie, S.A., date unknown.
 Paratypes ♂ V2125, ♀ V2126.
- Pararhadinorhynchus coorongensis* Edmonds, 1973
Trans. R. Soc. S. Aust. **97** (1): 19-21.
 Holotype ♂ V2392, allotype ♀ V2393, from *Aldrichetta forsteri*, Coorong, S.A., collector J. Harris, 1962.
 Paratypes V2381-84, 3 ♂ and 1 ♀.
 Note: Edmonds, 1973 recorded the type specimens (♂ and ♀) as being deposited in the Australian Museum but examination of specimens revealed that both primary and secondary types had been registered at SAM.
- Pararhadinorhynchus mugilis* Johnston & Edmonds, 1947
Trans. R. Soc. S. Aust. **71** (1): 15-7.
 Holotype ♂ V2399, from *Mugil cephalus*, Port Willunga, S.A., collector T. H. Johnston, 1939.
 Note: Paratypes 2400-05, 5 ♀ showing introvert well extended, genital complex and eggs, 1 ♂ showing cement glands and genital ganglion.
- Polymorphus bizurae* Johnston & Edmonds, 1948
Trans. R. Soc. S. Aust. **72** (1): 71-4.
 Holotype ♂ V2444, allotype ♀ V2447, from *Biziura lobata*, Tailem Bend, S.A., collectors G. G. & B. Jaensch and L. Ellis, date unknown.
- Pseudoporrorchis hydromuris* Edmonds, 1957
Trans. R. Soc. S. Aust. **80**: 77-8.
 From *Hydromys chrysogaster*, Innisfail, Qld., collector N. G. Elliot, 10/10/55.

Note: Type specimens do not appear to have been deposited in SAM. There is additional material V2573-9, collector B. Ewers from Port Moresby, Papua New Guinea.

PHYLUM PLATYHELMINTHES CLASS CESTODA

Specimens described by G. Krefft, 1873, are the oldest material in the type collection. Krefft's work was subsequently revised by T. H. Johnston. When Johnston arrived in Adelaide he brought with him much of the material which had been collected and described by him between 1909 and 1916 as well as some of Krefft's collection. Both T. H. and S. J. Johnston worked on Australian cestode material during the same period. All the species designated Johnston were described by T. H. Johnston. Continued interest has been shown in the Australian cestoda by a small number of workers since then. Some 80 type specimens from hosts collected throughout Australia and from Antarctic waters have been registered at the SAM or in the AHC.

Unless otherwise stated specimens listed below were dissected from the intestine of the vertebrate host.

Acanthotaenia tidswelli Johnston, 1909

Proc. R. Soc. N.S.W., **43**: 103-16.

Paratypes AHC 2051, from *Varanus varius*, near Bathurst, N.S.W., collector T. H. Johnston, date unknown.

Anomotaenia asymmetrica Johnston, 1913

Rep. Aust. Inst. Trop. Med. 1911: 81-2.

Paratype AHC S95, from *Herodias timorensis*, Townsville, Qld., from the collection of A. Breinl, date unknown.

Anomotaenia rhinocereti Johnston, 1911c

Proc. Linn. Soc. N.S.W., **36** (1): 70-4.

Cotype AHC S82, from *Rhinochetus jubatus*, collected in New Caledonia, held in captivity in Sydney for six months, collector H. E. Finck, date unknown.

Anthobothrium sexorchidum Williams, 1964

Parasitology **54**: 741-3.

Holotype V1061, from *Taenijira lynna*, Heron Is., off Rockhampton, Qld., collector J. Pearson, June 1956.

Balanotaenia bancrofti Johnston, 1924

Proc. Linn. Soc. N.S.W., **49** (3): 339-47.

Paratypes V1437-43, including serial sections, from *Tandanus tandanus*, Eidsvold, Burnett Rd., Qld., collectors T. L. & M. J. Bancroft, date unknown.

Balanotaenia newguineensis Mackiewicz & Blair, 1978
J. Helminthol. **52**: 201-3.

Paratypes V1158-59 from *Tandanus brevidorsalis*, Brown R., near Port Moresby, Papua New Guinea, collector D. Blair, date unknown.

Bancroftiella ardea Johnston, 1913

Rep. Aust. Inst. Trop. Med. 1911: 85-6.

Now *Parvitaenia ardea* (Johnston, 1913) Baer & Bona, 1960.

Lectotype V1673, paratypes AHC S309-11, from *Nycticorax caledonicus*, Townsville, Qld., from the collection of A. Breinl, date unknown.

Note: The lectotype, selected by Bona (1975), was labelled in T. H. Johnston's handwriting *Nycticorax caledonicus*, Glasshouse Mts., S. Qld., collector B. B. Taylor.

Bancroftiella temuis Johnston, 1911a

Proc. Linn. Soc. N.S.W., **36** (1): 50-7.

Cotype AHC S92, from *Macropus ualabatus*, collector A. S. Le Souëf, date unknown.

Note: Other species in this genus known only from birds. Johnston (1913) observed that there was no reason to doubt the accuracy of the collection data.

Bertiella foederata Beveridge, 1976

Aust. J. Zool. Suppl. Ser. **44**: 14-16.

Holotype V797, paratypes V798, 799, holotype sections AHC S968, from *Pseudocheirus peregrinus*, Inverleigh, Vic., collector I. Beveridge, 1/6/75.

Bertiella mawsonae Beveridge, 1976

Aust. J. Zool. Suppl. Ser. **44**: 16-18.

Holotype V794, paratype V795, from *Schoinobates volans*, Dartmouth, Vic., 20/1/74, collector I. Beveridge.

Bertiella petaurina Beveridge, 1976

Aust. J. Zool. Suppl. Ser. **44**: 21-3.

Holotype V796, from *Schoinobates volans*, Tumut, N.S.W., collector R. Smith, 1964.

Biacetabulum tandani Johnston & Muirhead, 1950

Rec. S. Aust. Mus. **9** (3): 346-8.

Holotype V847, from *Tandanus tandanus*, Tailem Bend and Murray Bridge, S.A., collectors G. G. Jaensch, L. Ellis and L. M. Angel, 1947-48.

Bothridium pythonis var. *parvum* Johnston, 1913

Rep. Aust. Inst. Trop. Med. 1911: 91-3.

Type material AHC 2054, from *Varanus varius*, Townsville, Qld., collector A. Breinl, date unknown.

Bothriocephalus kerguelensis Prudhoe, 1969

BANZARE rep. Ser. B **8** (9): 173-4.

Cotypes V115-27, 567-9, from *Notothenia cyanobrancha*, Royal Sound, Kerguelen, 20/10/29, 10/2/30; *Notothenia rossi* Station 64, Kerguelen, collector T. H. Johnston.

Note: Prudhoe did not designate type host, or locality of type in any of the cestodes he described from the BANZARE Expedition for 1929-1931. All the material sent to SAM was designated cotype material by the author.

Calostaurus mundayi Beveridge, 1975

J. Helminthol. **49**: 133-35.

Paratype V55, from *Potorous apicalis*, Launceston, Tas., collector B. L. Munday, date unknown.

Calostaurus thylogale Beveridge, 1975

J. Helminthol. **49**: 129-33.

Paratype V54, from *Thylogale billardieri*, Launceston, Tas., collector B. L. Munday, date unknown.

Capiuterilepis australiensis Schmidt, 1972

J. Parasitol. **58** (6): 1089-91.

Holotype V1090, paratype V1091-02, from *Anthochaera carunculata*, Nicholl's Reserve, S.A., collected by SAM, July 1971.

Capiuterilepis meliphagicolus Schmidt, 1972

J. Parasitol. **58** (6): 1091-2.

Holotype V1108, paratype V1109-10, from *Philemon corniculatus*, Caloundra, Qld., collector probably T. H. Johnston, 1920.

Caryoaustralis sprenii Mackiewicz & Blair, 1980

Proc. Helm. Soc. Wash. **47** (2): 169-72.

Paratype V1899, from *Tandanus ater*, Annan R., Helemvale, Qld., probable collector D. Blair, date unknown.

Choanotaenia meliphagidarum Johnston, 1911c

Proc. Linn. Soc. N.S.W. **36** (1): 58-70.

Now *Pseudochoanotaenia meliphagidarum* (Johnston, 1911) Schmidt, 1972.

Cotypes AHC S87, 88, 89, 389, from *Ptilotis leucotis*, Sydney and Hawkesbury District, N.S.W., collectors T. H. Johnston & J. B. Cleland, 1909.

Note: Although designated cotype by T. H. Johnston some of the material in the AHC was collected from *Meliornis sericea* and *Meliornis novaehollandiae* as well as *Ptilotis leucotis*.

Choanotaenia taylori Johnston, 1912a

Mem. Qld. Mus. **1**: 213.

Cotype AHC S90, from *Malurus cyanoclamys*, near Adelaide, S.A., collector J. B. Cleland, 1910.

Cittotaenia bancrofti Johnston, 1912c

Proc. R. Soc. Qld. **24**: 68-9.

Now *Progamotaenia bancrofti* (Johnston, 1912) Nybelin, 1917 after Beveridge, 1980.

Holotype (sectioned material) V2121, from *Onychogale frenata*, Burnett R., Qld., collector T. L. Bancroft, date unknown.

Cittotaenia lagorchestis Lewis, 1914

Proc. Zool. Soc., Lond. 1914: 420.

Now *Progamotaenia lagorchestis* (Lewis, 1914) Nybelin 1917 after Beveridge & Thompson, 1979.

Neotypes V1322, 1323, Barrow Is., W.A., collector L. Hemsley.

Note: The original type material from *Lagorchestes conspicillatus* collected on Hermit Is., Montebello Group, W.A. by P. D. Montague ?1914 has been reported as lost (Beveridge, 1976; Beveridge & Thompson, 1979). Two similar yet distinct species have been confused under the name *P. lagorchestis* (Lewis, 1914). The original species is redescribed by Beveridge & Thompson (1979) as above. The specimens described by Beveridge in 1976 represent a new species designated *P. thylogale* by Beveridge & Thompson (1979).

Cittotaenia tachyglossi Johnston, 1913

Rep. Aust. Inst. Trop. Med. 1911: 77-8.

Now *Echidnoteria tachyglossi* (Johnston, 1913) Beveridge, 1980a. Syntypes V1303-14, including sectioned material, from *Tachyglossus aculeatus*, Townsville, Qld., from the collection of A. Breinl, date unknown.

Cyclorchida ornalanchristota Wedl, 1855

Rep. Aust. Inst. Trop. Med. 1911: 86-8. (Johnston, 1913.)

Now *C. o. australiensis* (Wedl, 1855 sensu Johnston, 1913), Bona, 1975.

Syntypes S312, from *Platalea regia*, Townsville, Qld., from the collection of A. Breinl, date unknown.

Davalnea cacatuina Johnston, 1913

Rep. Aust. Inst. Trop. Med. 1911: 79-80.

Now *Raillietina cacatuina* (Johnston, 1913) Yamaguti, 1959.

Paratypes V1081-4, from *Cacatua galerita*, Townsville, Qld., from the collection of A. Breinl, date unknown.

Davainea himantopodis Johnston, 1911c

Proc. Linn. Soc. N.S.W. **36** (1): 75-9.

Cotypes AHC S83, from *Himantopus leucocephalus*, Tailem Bend, S.A., collector J. B. Cleland, 1910.

Dendrouterina australiensis Baer & Bona, 1960

Boll. Instit. Mus. Zool. Univ. Torino **6** (4): 12-3.

Holotype V1676 including sectional material, from "grey heron", Swan Reach, S.A., collector T. H. Johnston, 15/12/37.

Note: Baer & Bona (1960) record this from Australian material labelled "Grey Heron" *Ardea pacifica* Latham? At the time of the collection "Grey Heron" was often used in S.A. for *Ardea novaehollandiae* and in T. H. Johnston's dissection notes there is recorded "Grey Heron" *Notophoyx novaehollandiae*. *N. pacifica* was referred to by Johnston as the Pacific Heron which is a much rarer bird at Swan Reach.

- Dilepis bancrofti* Johnston, 1912a
Mem. Qld. Mus. **1**: 21-2.
 Now *Hemiparonia bancrofti* (Johnston, 1912) Schmidt, 1972.
 Type and cotype AHC S91 including sectioned material, from *Platycercus eximius*, collector T. H. Johnston, date unknown.
- Diphyllobothrium arctocephalinum* Johnston, 1937
Proc. Linn. Soc. N.S.W. **62** (1): 9-13.
 Holotype V13, from *Arctocephalus forsteri*, Pearson Is., collector J. B. Cleland, 1923.
 Note: Host collection data are identical with that for the host of *Corynosoma australe*. Johnson and Best (1942) record that the type host was incorrectly identified and should be regarded as *Neophoca cinerea*.
- Echinobothrium heronensis* Williams, 1964
Parasitology **54**: 737-40.
 Paratype V1066, holotype V1060, from *Taeniuira lyma*, Heron Is., off Rockhampton, Qld., collector J. Pearson, June 1956.
- Eutetrahynchus australis* Prudhoe, 1969
BANZARE Rep. Ser. B **8** (9): 176-7.
 Cotypes V143, 144, 605, from *Mustelus antarcticus*, Hobart, Tas., collector T. H. Johnston, November 1930.
- Hymenolepis aklei* Beveridge & Barker, 1975
J. Helminthol. **49**: 220-4.
 Paratypes V68-70, holotypes V67, from *Antechinus stuartii*, Powelltown, Vic., collected by the authors 17/8/74.
- Hymenolepis bradleyi* Beveridge & Barker, 1975
J. Helminthol. **49**: 224-6.
 Paratypes V72-4, holotype V71, from *Antechinus stuartii*, Powelltown, Vic., collected by the authors 23/3/74.
- Hymenolepis ellisi* Johnston & Clark, 1948a
Trans. R. Soc. S. Aust. **72** (1): 81-2.
 Holotype V2803, from *Pelecanus conspicillatus*, collectors G. G., Fred & B. Jaensch and L. Ellis, date unknown. Locality: Tailem Bend, S.A.
- Hymenolepis jaenschii* Johnston & Clark, 1948a
Trans. R. Soc. S. Aust. **72** (1): 79-81.
 Holotype V2804, from *Pelecanus conspicillatus*, Tailem Bend, S.A., collectors G. G., Fred and B. Jaensch and L. Ellis, date unknown.
- Hymenolepis murrayensis* Johnston & Clark, 1948a
Trans. R. Soc. S. Aust. **72** (1): 77-9.
 Holotype V2802, from *Pelecanus conspicillatus*, Tailem Bend, S.A., collectors G. G., Fred and B. Jaensch and L. Ellis, date unknown.
- Lapwingia adelaidae* Schmidt, 1972
J. Parasitol. **58** (6): 1085-7.
- Paratypes V1105-7, holotype V1104, from *Lobibyx novaehollandiae*, Townsville, Qld., collector and date unknown (probably from A. Brejnl's collection 1910 to 1913).
Lateriporus mawsoni Prudhoe, 1969
BANZARE Rep. Ser. B **8** (9): 190-1.
 Cotypes V362-71, from *Chionis minor*, Kerguelen Is., collector T. H. Johnston, 17/11/29.
 Note: Several other collection sites are listed. Also recorded from *Chionis minor crozettensis*, Possession Island, Crozets, 3/11/29.
- Megalonchus dubius* Prudhoe, 1969
BANZARE Rep. Ser. B **8** (9): 180-2.
 Cotypes V156-8, from *Mustelus antarcticus*, Hobart, Tas., collector T. H. Johnston, November 1930.
- Megalonchus musteli* Prudhoe, 1969
BANZARE Rep. Ser. B **8** (9): 179-80.
 Cotypes V152-5, from *Mustelus antarcticus*, Hobart, Tas., collector T. H. Johnston, November 1930.
- Moniezia diaphana* Zschokke, 1907
Zentralbl. Bakteriol. Parasitenk. **44**: 261-64.
 Now *Progamotaenia diaphana* (Zschokke, 1907) Baer, 1927 after Beveridge, 1976.
 Syntypes V2122, from *Lasiorhinus latifrons* bile ducts, probably Adelaide, S.A., collector E. Angus Johnston, date unknown.
 Note: The material registered in SAM is thought by Beveridge (1976 and 1980b) to be some of the original material described by Zschokke (1907). The material was mounted by T. H. Johnston and labelled, in his handwriting, "part of material examined by Zschokke and Angus Johnston". There were no collection data given by Zschokke in the original description. The host name was recorded as *Phascolomys wombat* now a synonym of *Vombatus ursinus*. Beveridge (1980) believes this identification to be in error with the type host being *Lasiorhinus latifrons*.
- Notylocestus major* Johnston & Muirhead, 1950
Rec. S. Aust. Mus. **9** (3): 340-4.
 Holotype V854, paratype V855, from *Tandanus tandanus*, Murray Bridge, S.A., collector L. M. Angel, December 1947.
- Notylocestus minor* Johnston & Muirhead, 1950
Rec. S. Aust. Mus. **9** (3): 344-6.
 Holotype V856, from *Tandanus tandanus*, Murray Bridge, S.A., collector L. M. Angel, December 1947.
- Oochoristica antechini* Beveridge, 1977
J. Helminthol. **51**: 32-5.
 Holotype V818, from *Antechinus macdonnellensis*, 27 km west of Refrigerator Well, Tanami Rd., N.T., collector P. Woolley, July 1975.

- Oochoristica eremophila* Beveridge, 1977
J. Helminthol. **51**: 35-8.
 Holotype V828, paratypes V829-35, from *Antechinus rosamundae*, Woodstock Stn., via Marble Bar, W.A., collector P. Woolley, November, 1975.
- Ophioptaenia hylae* Johnston, 1912c
Proc. R. Soc. Qld. **24**: 63-4.
 Cotypes AHC S86, from *Hyla aurea*, Sydney, N.S.W., collector S. J. Johnston, date unknown.
- Ophioptaenia longmani* Johnston, 1916
Mem. Qld. Mus. **5**: 186-94.
 Cotypes AHC S85, S523, from *Aspidiotes ramsayi*, Yeulba, Western Qld., collector H. A. Longman, date unknown.
- Paramonezia johnstoni* Beveridge, 1976
Aust. J. Zool. Suppl. Ser. **44**: 31-4.
 Holotype V760, paratypes V761-5, from *Vombatus ursinus*, Forester R., Tas., collector B. L. Munday, 28/4/72.
- Parabothriocephalus johnstoni* Prudhoe, 1969
BANZARE Rep. B **8** (9): 174-5.
 Cotypes V128-36, 570 from *Coryphaenoides whitsoni*, 330 fathoms, 66° 24'S, 59° 09'E, collector T. H. Johnston, 7/1/30.
- Parvitaenia clavipera* Baer & Bona, 1960
Boll. Inst. Mus. Zool. Univ. Torino **6** (4): 3.
 Holotype V1675, from *Ardea novaehollandiae*, Townsville, Qld., collector not known, possibly A. Breinl 1910-1913.
 Note: This slide labelled *Bancroftiella glandularis* (Fuhrmann), in T. H. Johnston's handwriting.
- Parvitaenia paracyclorchida* Baer & Bona, 1960
Boll. Inst. Mus. Univ. Torino **6** (4): 1-3 & 44.
 Holotype V1674, from *Ardea novaehollandiae*, Wamberal, N.S.W., collector S. J. Johnston, date unknown.
 Note: This slide labelled *Bancroftiella glandularis* in T. H. Johnston's handwriting.
- Phascolotaenia comani* Beveridge, 1976
Aust. J. Zool. Suppl. Ser. **44**: 35-7.
 Holotype V766, paratypes V767-8, from *Vombatus ursinus*, Taggerty, Vic., collector B. J. Coman, 19/7/71.
- Polyonchobothrium scleropagis* Blair, 1978
J. Helminthol. **52** (2): 147-53.
 Holotype V1160, paratypes V1161-5, from *Scleropages leichardti*, Wenlock R., Cape York Pen., Qld., collector D. Blair, 8/7/75.
- Progamotaenia aepyprymni* Beveridge, 1976
Aust. J. Zool. Suppl. Ser. **44**: 40-1.
 Holotype V772, from *Aepyprymnus rufescens*, Burnett R., Qld., collector T. L. Bancroft, February 1912.
- Progamotaenia effigia* Beveridge, 1976
Aust. J. Zool. Suppl. Ser. **44**: 45-7.
 Holotype V773, paratypes V774-5, from *Macropus fuliginosus* (bile duct), Pine Plains Stn., via Patchewollock, Vic., collector I. Beveridge, 28/6/73.
- Progamotaenia gynandrolinearis* Beveridge & Thompson, 1979
J. Helminthol. **53**: 156-7.
 Holotype V1315, paratypes V1316-9, sectioned material V1320, from *Lagorchestes conspicillatus*, Barrow Is., W.A., collector L. Hemsley, 1976.
- Progamotaenia johnsoni* Beveridge, 1980b
Trans. R. Soc. S. Aust. **104** (4): 69-72.
 Holotype V1918 including sections from *Lagorchestes conspicillatus*, paratype V1919, Mingela, Qld., collector I. Beveridge, 10/5/79.
- Progamotaenia lagorchestis* Beveridge, 1976
Aust. J. Zool. Suppl. Ser. **44**: 55-8.
 Now *Progamotaenia thylogale* Beveridge (1976) Beveridge & Thomson, 1979.
 Holotype V783, paratypes V784, from *Thylogale billardierii*, Launceston, Tas., collector B. L. Munday.
- Progamotaenia macropodis* Beveridge, 1976
Aust. J. Zool. Suppl. Ser. **44**: 58-60.
 Holotype V776, paratypes V777-8, from *Macropus giganteus*, Yan Yean, Vic., collector J. H. Arundel, 12/9/72.
- Progamotaenia ruficola* Beveridge, 1978
J. Parasitol. **64** (2): 273-6.
 Holotype V1207-10, paratypes V1212-13, AHC 8650, 8651, from *Macropus rufus*, Menindee, N.S.W., collector I. Beveridge, date unknown.
- Progamotaenia spearei* Beveridge, 1980b
Trans. R. Soc. S. Aust. **104** (4): 67-9.
 Holotype V1920, from *Thylogale stigmatica*, Tolga, Qld., collector I. Beveridge, 16/10/78.
- Proteocephalus gallardi* Johnston, 1911b
Ann. Qld. Mus. **10**: 1-8.
 Now *Acanthotaenia gallardi* Johnston (1911) 1912c, Cotypes AHC S80, 81, from *Pseudechis porphyriacus*, Gosford, Richmond, Hunter R. and Sydney, N.S.W., Gippsland, Vic., collectors L. Gallard, C. T. Musson, F. H. Taylor, W. Hall, A. S. Souëff & T. H. Johnston, 1909-1910.
 Note: Johnston exhibited some specimens of *A. gallardi* as *Ichthyotaenia* sp. at a meeting of The Royal Society of N.S.W. in 1910. However, a full description of the species was not published (as *P. gallardi*)

until 1911. In his paper Johnston did not designate a type locality, but the slides registered as cotypes with AHC as *Ichthyotaenia gallardi* have Narrara, N.S.W., and Victoria (A. S. Le Souëff collector) as localities. It is known that T. H. Johnston always listed the type locality first.

Raillietina leipode Johnston & Clark, 1948b

Rec. S. Aust. Mus. **9** (10): 87-90.

Holotype V3044, paratypes AHC 1381, from *Leipoa ocellata*, Tailem Bend, S.A., collector L. Ellis.

Rhinebothrium himanturi Williams, 1964

Parasitology **54**: 740-1.

Holotype V1063, paratype V1064, from *Himantura granulata*, Heron Is. off Rockhampton, Qld., collector J. Pearson, June 1956.

Sphaerularina punctata Johnston, 1914

Proc. R. Soc. Qld. **26**: 76-80.

Cotypes AHC S369, S79, from *Pachycephala rufiventris*, Caloundra, N.S.W., collector T. H. Johnston, August 1914.

Taenia bairdii Krefft, 1873

Trans. Ent. Soc. N.S.W. **2**: 224-7.

Now *Microsomacanthus collaris* Batsch, 1786, after Yamaguti, 1959. Cotypes AHC S77, from *Anas superciliosa*, N.S.W., collector G. Krefft, date unknown.

Note: The specimens collected by Krefft constituted about half the then known cestodes (Johnston, 1912b). However, his descriptions and figures were not detailed enough for species recognition. Fortunately most of the type material was deposited in The Australian Museum and available for re-examination by Johnston. Although some specimens were poorly preserved Johnston was able to find better preserved material which he identified as the same species as the types in question. Some of Krefft's material as redescribed by Johnston has been deposited in the AHC.

Taenia chlamydoderae Krefft, 1873

Trans. Ent. Soc. N.S.W. **2**: 224.

Now *Paricterotaenia chlamydodera* (Krefft, 1873) Yamaguti, 1959, Cotype AHC S71, from *Chlamydodera maculata*, collector G. Krefft, date unknown.

Taenia coronata Krefft, 1873

Trans. Ent. Soc. N.S.W. **2**: 220-1.

Now *Gyrocoelia australiensis* (Krefft, 1873) Johnston, 1921b, Cotypes AHC S72, S344-5, N.S.W., collector G. Krefft, date unknown.

Taenia flavescentis Krefft, 1873

Trans. Ent. Soc. N.S.W. **2**: 219.

Now *Dioorchis flavescentis* (Krefft, 1873) Johnston, 1912b, Cotypes S73-5, S441, from *Anas superciliosa*, N.S.W., collector G. Krefft, date unknown.

Taenia forsteri Krefft, 1873

Trans. Ent. Soc. N.S.W. **2**: 218.

Now *Tetrabothrius forsteri* (Krefft, 1873) Johnston, Cotype AHC 578, 1912b, from *Delphinus forsteri*, Port Jackson, N.S.W., collector and date unknown.

Taenia mastersii Krefft

Trans. Ent. Soc. N.S.W. **2**: 217-8.

Cotype AHC S70, from *Macropus* sp., Qld., collector G. Masters, date unknown.

Note: Beveridge (1976) considered that this species possibly belonged to *Calostaurus*.

Taenia paradoxa Krefft, 1873

Trans. Ent. Soc. N.S.W. **2**: 217-8.

Cotypes AHC S76, S386, from *Podiceps australis*, N.S.W., collector G. Krefft, date unknown.

Note: *T. paradoxa* is preoccupied by Rudolphi, 1801. Johnston was unable to establish the status of the species which awaits redescription. Krefft named the host Little Grebe, *Podiceps australis*. This is now a synonym of the Crested Grebe. Obviously he meant what is now *Tachybatus novaehollandiae*. The Little Grebe would not be mistaken for the Crested Grebe or vice versa.

Taenia rugosa Krefft, 1873

Trans. Ent. Soc. N.S.W. **2**: 223-4.

Now *Acoelus hedleyi* (Krefft, 1873) Johnston, 1912b, Neotype AHC S339-40, from *Himantopus leucocephalus*, Hunter River, N.S.W., collector G. Krefft, date unknown.

Note: Johnston found the original material so damaged as to be useless, but was able to compare it with fresh material from the same host in South Australia by J. B. Cleland. The armature of the cirrus sac of both lots of material assisted in establishing their identity.

Tholophyllacus johnstoni Mackiewicz & Blair, 1980

Proc. Helm. Soc. Wash. **47** (2): 172-4.

Paratypes V1893-4, from *Tandanus glenocoensis*, Ross R. near Townsville, Qld., collectors probably the authors, date unknown.

Triplotaenia fimbriata Beveridge, 1976

Aust. J. Zool. Suppl. Ser. **44**: 69-71.

Holotype V800, paratype V801, from *Macropus giganteus*, Nebo, Qld., collector A. Glassop, 17/8/73.

Triplotaenia undosa Beveridge, 1976

Aust. J. Zool. Suppl. Ser. **44**: 73-5.

Holotype V802, paratype V803, AHC S962, from *Wallabia bicolor*, Dartmouth, Vic., collector I. Beveridge, 22/1/74.

Valipora parvitaeniuncula Baer & Bona, 1960

Boll. Inst. Mus. Zool. Torino **6** (4): 9.

Now *Baerbaenia p. parvitaeniuncula* (Baer & Bona,

1960), 1975, Syntype AHC S308, from *Egretta sacra*, Masthead Is., Qld., collector T. H. Johnston, 1917.

Zosteropicola clelandi Johnston, 1912a
Mem. Qld. Mus. 1: 214-5.

Cotypes AHC S84, S464, from *Zosterops coeruleocephala*, neighbourhood of Sydney, N.S.W., collectors J. B. Cleland, J. O. Heinrich and T. H. Johnson, dates unknown.

ACKNOWLEDGEMENTS

I would like to thank Mrs. P. M. Thomas (Mawson), Miss L. M. Angel and Dr. S. J. Edmonds without whose advice and assistance these lists of helminth types could not have been prepared. This work was funded by an Australian Biological Resources Study grant to the South Australian Museum.

REFERENCES

- BAER, J. G. 1927. Monographie des cestodes de la famille des Anoplocephalidae. *Bull. Biol. Fr. Belg.* Suppl. 10.
- BAER, J. G., and BONA, F. 1960. Révision des Cestodes Dilepididae Fuhrm., 1907 des Ardeiformes. Note préliminaire. *Boll. Inst. Mus. Zool. Torino* 6(4): 1-53.
- BEVERIDGE, I. 1975. On two new dayaineid cestodes from Australian marsupials. *J. Helminthol.* 49: 129-136.
- BEVERIDGE, I. 1976. A taxonomic revision of the Anoplocephalidae (Cestoda: Cyclophyllidae) of Australian marsupials. *Aust. J. Zool. Suppl. Ser.* 44: 1-110.
- BEVERIDGE, I. 1977. On two new linstowiid cestodes from Australian dasyurid marsupials. *J. Helminthol.* 51: 31-40.
- BEVERIDGE, I. 1978. *Progamotaenia ruficola* sp. n. (Cestoda: Anoplocephalidae) from the Red Kangaroo, *Macropus rufus* (Marsupalia). *J. Parasitol.* 64 (2): 273-6.
- BEVERIDGE, I. 1980a. *Echidnoetaenia tachyglossi* (Johnston) gen. et comb. nov. (Anoplocephalidae: Linstowiidæ) from the monotreme *Tachyglossus aculeatus* Shaw in Australia. *J. Helminthol.* 54: 129-34.
- BEVERIDGE, I. 1980b. *Progamotaenia Nybelini* (Cestoda: Anoplocephalidae); new species, redescriptions and new host records. *Trans. R. Soc. S. Aust.* 104 (4): 67-79.
- BEVERIDGE, I., and BARKER, I. K. 1975. Acuariid, capillariid and hymenolepid parasites of the dasyurid marsupial *Antechinus stuartii* Macleay, 1841, from south eastern Australia. *J. Helminthol.* 49: 211-27.
- BEVERIDGE, I., and THOMPSON, R. C. A. 1979. The anoplocephalid cestode parasites of the spectacled hare-wallaby, *Lagorchestes conspicillatus* Gould, 1842 (Marsupialia: Macropodidae). *J. Helminthol.* 53: 153-60.
- BLAIR, D. 1978. *Polyonchobothrium scleropagis* n. sp. (Cestoda: Pseudopyllidea) from the Australian osteoglossid fish *Scleropages leichardti* Gunther. *J. Helminthol.* 52 (2): 147-53.
- BONA, F. 1975. Etude critique et taxonomique des Dilepididae Fuhrm., 1907 (Cestoda) parasites des Ciconiiformes: considérations sur la spécificité et la spéciation. *Ital. J. Zool., Monograph.* 1: 1-750.
- EDMONDS, S. J. 1957a. Acanthocephala. *BANZARE Rep. Ser. B*, 6 (5): 93-8.
- EDMONDS, S. J. 1957b. Australian Acanthocephala No. 10. *Trans. R. Soc. S.A.* 80: 76-80.
- EDMONDS, S. J. 1971. Australian Acanthocephala No. 13: three new species. *Trans. R. Soc. S. Aust.*, 95 (2): 55-60.
- EDMONDS, S. J. 1973. Australian Acanthocephala No. 14: On two new species of *Pararhadinorhynchus*, one new. *Trans. R. Soc. S. Aust.*, 97 (1), 19-21.
- GOLVAN, Y-J. 1956. Acanthocephales d'Oiseaux. Troisième note. Révision des espèces européennes de la sous-famille des Plagiorhynchinae Meyer 1931 (Polymorphidae). *Ann. Parasitol. Hum. Comp.* 31 (4): 350-84.
- GOLVAN, Y-J. 1960. Le Phylum des Acanthocephala. Troisième note. Le Classe des Palaeacanthocephala Meyer 1931. *Ann. Parasitol. Hum. Comp.* 35 (1-2): 138-65, 350-86, 575-93, 713-23.
- JOHNSTON, T. H. 1909. On a new reptilian cestode. *Proc. R. Soc. N.S.W.* 43: 103-16.
- JOHNSTON, T. H. 1911a. The Entozoa of Monotremata and Australian Marsupialia. *Proc. Linn. Soc. N.S.W.* 36 (1): 47-57.
- JOHNSTON, T. H. 1911b. *Proteocephalus gallardi* a new cestode from the black snake. *Ann. Qld. Mus.* 10: 1-8.
- JOHNSTON, T. H. 1911c. New species of Avian Cestodes. *Proc. Linn. Soc. N.S.W.* 36 (1): 58-80.
- JOHNSTON, T. H. 1912a. New Species of cestodes from Australian birds. *Mem. Qld. Mus.* 1: 211-15.
- JOHNSTON, T. H. 1912b. On a re-examination of the types of Krefft's species of Cestoda in The Australian Museum. *Rec. Aust. Mus.* 9 (1): 1-35.
- JOHNSTON, T. H. 1912c. Notes on some Entozoa. *Proc. R. Soc. Qld.* 24: 63-91.
- JOHNSTON, T. H. 1913. Cestoda and Acanthocephala. *Rep. Inst. Trop. Med.* 1911. 75-96.
- JOHNSTON, T. H. 1914. Some new Queensland endoparasites. *Proc. R. Soc. Qld.* 26: 76-84.
- JOHNSTON, T. H. 1916. Helminthological Notes. *Mem. Qld. Mus.* 5: 186-96.
- JOHNSTON, T. H. 1924. An Australian caryophyllaid cestode. *Proc. Linn. Soc. N.S.W.* 49 (3): 339-47.
- JOHNSTON, T. H. 1937. Entozoa from the Australian Hair Seal. *Proc. Linn. Soc. N.S.W.* 62 (1-2): 9-16.
- JOHNSTON, T. H., and BEST, E. W. 1937. Acanthocephala. *A.A.E. 1911-14 Rep. Ser. C Zool. Bot.* 10 (2): 5-20.
- JOHNSTON, T. H., and BEST, E. W. 1942. Australian Acanthocephala No. 3. *Trans. R. Soc. S. Aust.* 66 (2): 250-4.
- JOHNSTON, T. H., and BEST, E. W. 1943. Australian Acanthocephala No. 4. *Trans. R. Soc. S. Aust.* 67 (2): 226-30.
- JOHNSTON, T. H., and CLARK, H. G. 1948a. Cestodes from Australian birds 1. Pelicans. *Trans. R. Soc. S. Aust.* 72 (1): 77-82.
- JOHNSTON, T. H., and CLARK, H. G. 1948b. A new cestode, *Raillietina (R.) leipoae*, from the Mallee Hen. *Rec. S. Aust. Mus.* 9 (1): 87-91.
- JOHNSTON, T. H., and EDMONDS, S. J. 1947. Australian Acanthocephala No. 5. *Trans. R. Soc. S. Aust.* 71 (1): 13-19.
- JOHNSTON, T. H., and EDMONDS, S. J. 1947. Australian Acanthocephala No. 6. *Rec. S. Aust. Mus.* 8 (4): 555-62.
- JOHNSTON, T. H., and EDMONDS, S. J. 1948. Australian Acanthocephala No. 7. *Trans. R. Soc. S. Aust.* 72 (1): 69-76.
- JOHNSTON, T. H., and EDMONDS, S. J. 1951. Australian Acanthocephala No. 8. *Trans. R. Soc. S. Aust.* 74 (1): 1-5.
- JOHNSTON, T. H., and MUIRHEAD, N. G. 1950. Some Australian caryophyllaid cestodes. *Rec. S. Aust. Mus.* 9 (3): 339-48.
- KREFFT, G. 1873. On Australian Entozoa. *Trans. Ent. Soc. N.S.W.* 2: 206-32.
- LEWIS, R. C. 1914. On two new species of tapeworms from the stomach and small intestine of a wallaby *Lagorchestes conspicillatus* from Hermite Island, Monte Bello Islands. *Proc. Zool. Soc. Lond.*, 1914: 419-33.

- MACKIEWICZ, J. S., and BLAIR, D. 1978. Balanotaeniidae fam. n. and *Balanotaenia newguinensis* sp. n. (Cestoidea; Caryophyllidae) from *Tandanus* (Siluriformes: Plotosidae) in New Guinea. *J. Helminthol.* **52**: 199-203.
- MACKIEWICZ, J. S., and BLAIR, D. 1980. *Caryoaustralus* gen. n. and *Tholophylaeus* gen. n. (Lytocestidae) and other Caryophyllid cestodes from *Tandanus* spp. (Siluriformes) in Australia. *Proc. Helminthol. Soc. Wash.* **47** (2): 168-78.
- MOLIN, R. 1858. Prospectus helminthrum quae in parte seconda prodromi faunae helminthologicae venetae continentur. *Sitzber. K. Akad. Wiss. Wien, Matl.-Naturw. Kl.* **30**: 141.
- NYBELIN, O. 1917. Australische Cestoden. Results of Dr E. Mjöberg's Swedish Scientific Expeditions to Australia, 1910-1913. *Kungl. Svenska Vetenskadiemien Handlingar* **52**: 1-48.
- PRUDHOE, S. 1969. Cestodes from fish, birds and whales. *BANZARE Rep. Ser. B (Zool. Bot.)* **8** (9): 171-93.
- SCHMIDT, G. D. 1972. Cyclophyllidean cestodes of Australian birds with three new species. *J. Parasitol.* **58** (6): 1085-94.
- SCHMIDT, G. D., and KUNTZ, R. E. 1967. Revision of the Porrorchinae (Acanthocephala: Plagiorhynchidae) with descriptions of two new genera and three new species. *J. Parasitol.* **53** (1): 130-41.
- SCHMIDT, G. D., and KUNTZ, R. E. 1977. Revision of *Mediorhynchus* Van Cleave, 1916 with a key to species. *J. Parasitol.* **63** (3): 500-07.
- VAN CLEAVE, H. J., and LINCICOME D. R. 1939. On a new genus and species of Rhadinorhynchidae. *Parasitology* **31**: 413-6.
- WEDL, K. 1855. Helminthologische Notizen. *Sitz-ber. Akad. Wiss. Wien, Math-Naturwiss Kl.*, Abt. I **16**: 371-95.
- WILLIAMS, H. H. 1964. Some new and little known cestodes from Australian elasmobranchs with a brief discussion on their possible use in problems of host taxonomy. *Parasitology* **54**: 1737-48.
- YAMAGUTI, S. 1935. Studies in the helminth fauna of Japan. Part 8. Acanthocephala I. *Jap. J. Zool.* **6** (2): 277-78.
- YAMAGUTI, S. 1959. *Systema Helminthum II. The Cestodes of Vertebrates*. Interscience, New York.
- ZSCHOKKE, F. 1907. *Monezia diaphana* n. sp. Ein weiterer Beitrag zur Kenntnis der Cestoden aplacentaler Säugetiere. *Centralbl. Bakt.* **44** (3): 261-4.